Ho Chi Minh Office

Alif Dinda Nurul Alfian

OFFICE BUILDING
HO CHI MINH, VIETNAM

BACKGROUND

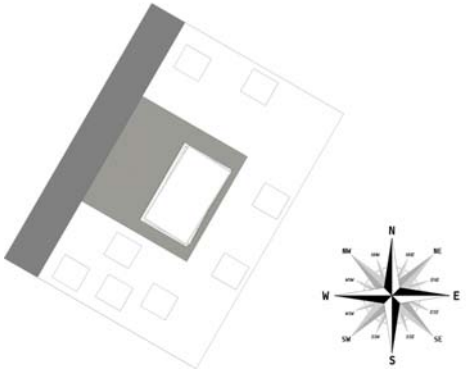
Building Data

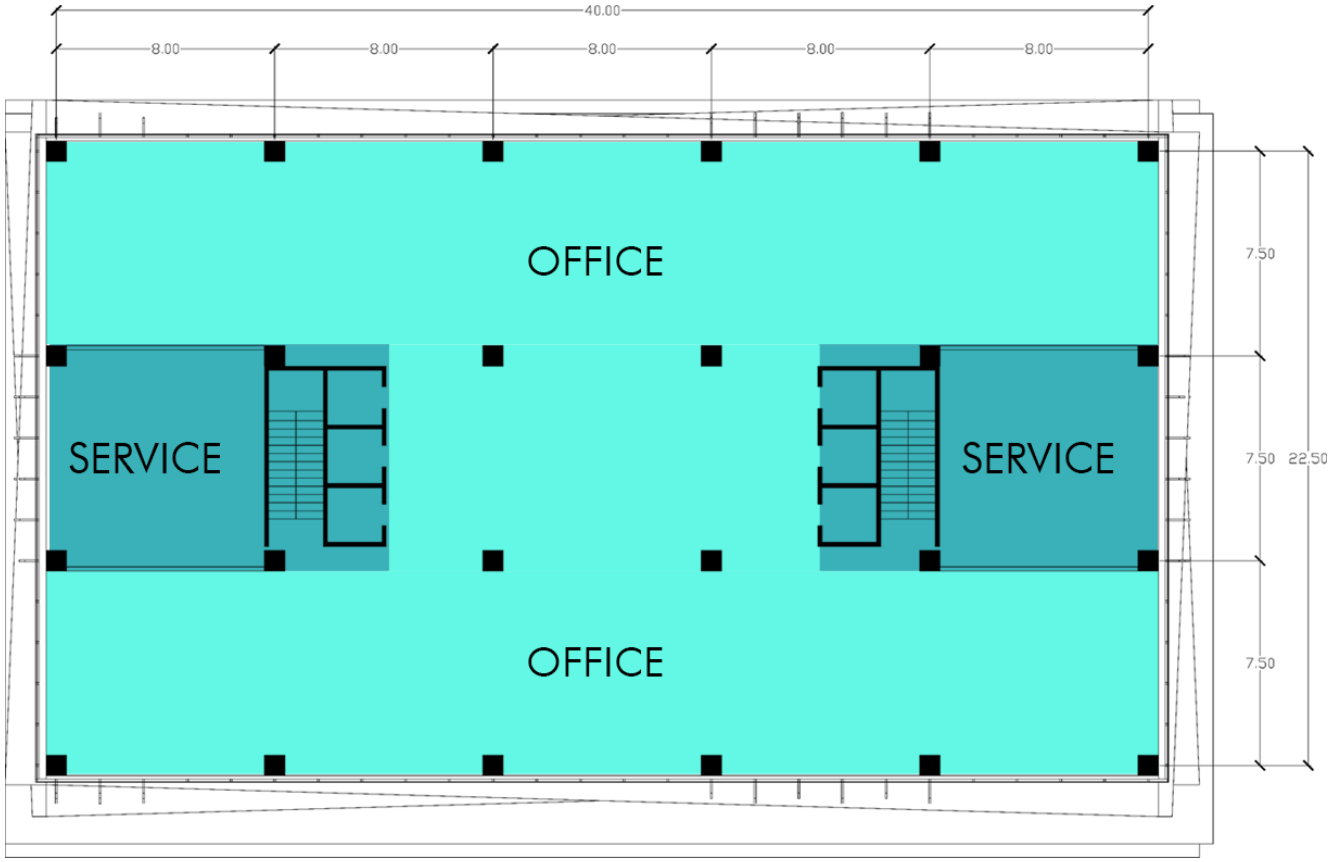
Location	: Ho Chi Minh
Country	: Vietnam
Total Project Floor Area	: 4500 m2
Floors Above Grade	: 5
Floors Below Grade	: 0
Floor-to-Floor Height	: 4 m

Building Orientation

Floor Plan Depth	: 22.5 m
Main Orientation	: Northwest

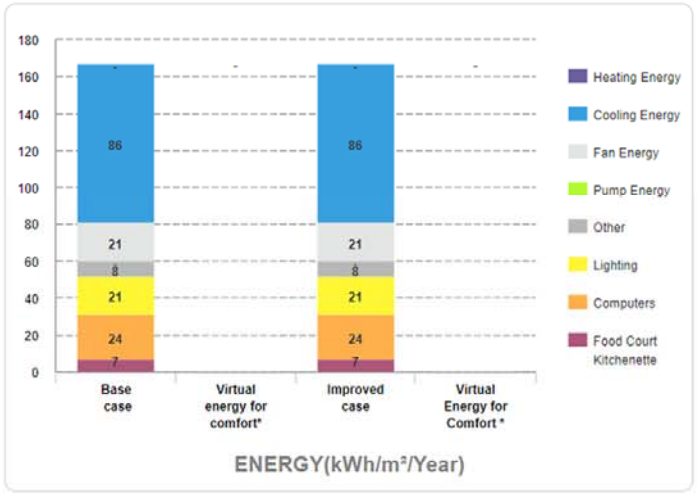
BUILDING ORIENTATION



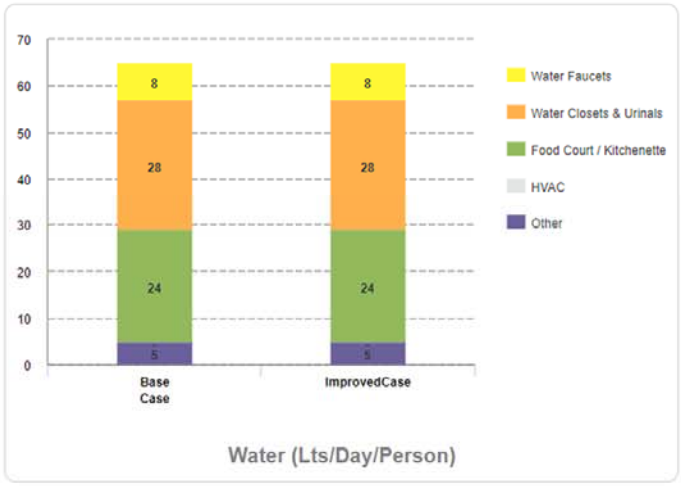


BASE CASE

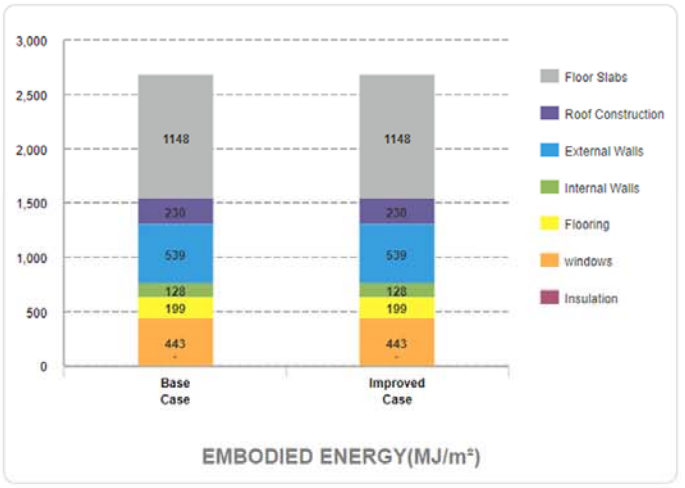
-0.09% ENERGY SAVINGS



0.00% WATER SAVINGS



0.00% EMBODIED ENERGY SAVINGS



DESIGN STRATEGY

ENERGY

32.86%

OFE04-External shading Devices

OFE07-Low E-Coated Glass 2 W/m².K and SHGC of 0.45

OFE09-Natural Ventilation with Operable Windows and No A/C

OFE12-Air Conditioning with Air cooled Screw chiller

OFE24-Energy-Saving Light Bulbs - Internal Spaces

OFE26-Lighting Controls for Corridors and Staircases

WATER

51.6%

OFW01-Low-Flow Faucets in All Bathrooms - 2 L/min

OFW02-Dual Flush for Water Closets in All Bathrooms - 4 L/first flush and 3 L/second flush

OFW03-Water-Efficient Urinals in All Other Bathrooms - 2 L/flush

OFW08-Black Water Treatment and Recycling System

MATERIAL

40.22%

OFM01-in situ reinforce

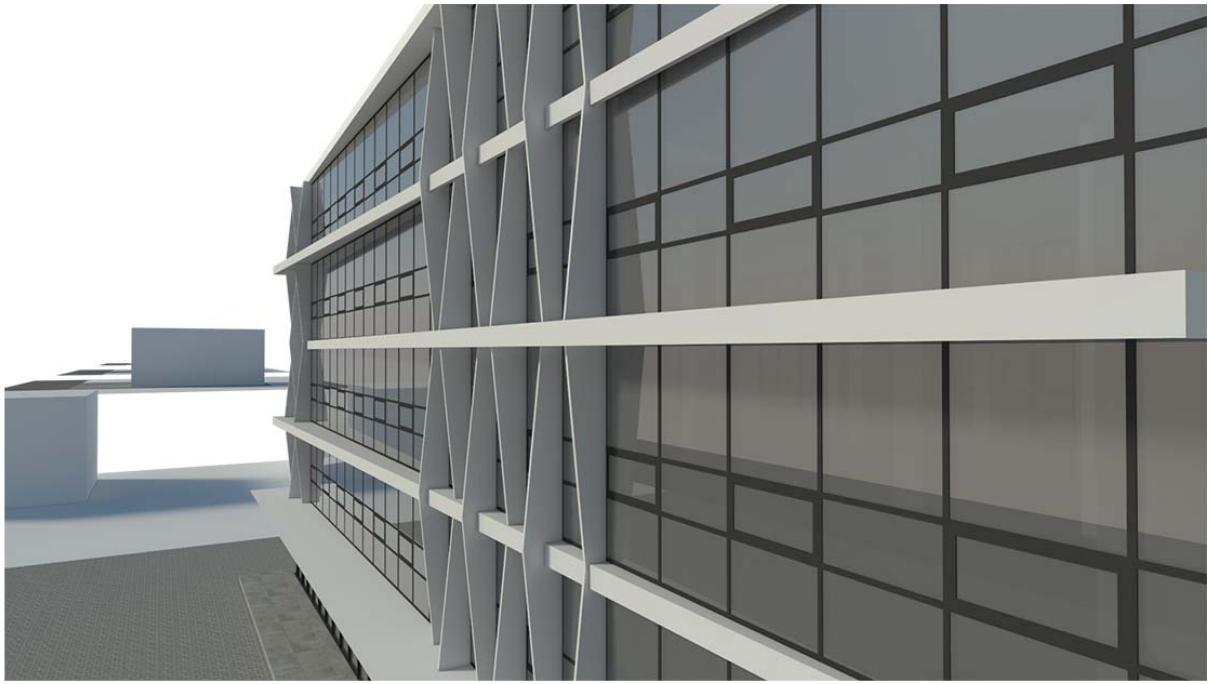
OFM02-in situ reinforce

OFM03-external wall medium weight hollow concrete blocks

OFM04-internal walls medium weight hollow concrete blocks

OFM05-flooring finished concrete

Final Energy Use (kWh/Month)	Total Water Use (kL/Month/units)	Operational CO2 Savings (tCo2/year)	Embodied Energy savings (Mj/m2)	Incremental Cost (mVND)
20,023.27	460.3	24.95	1,080.52	122,663.97



EKSTERIOR

- EXTERNAL SHADING DEVICE- ANNUAL AVERAGE SHADING FACTOR AASF 0.34
- LOW-E COATED GLASS : U-VALUE OF 2 W/M².K AND SHGC OF 0.45
- NATURAL VENTILATION

INTERIOR

- OFE24-ENERGY-SAVING LIGHT BULBS - INTERNAL SPACES
- FLOORING FINISHED CONCRETE
- LOW-E COATED GLASS : U-VALUE OF 2 W/M².K AND SHGC OF 0.45
- NATURAL VENTILATION

ENERGY

OFE04-External shading Devices

OFE07-Low E-Coated Glass 2 W/m².K and SHGC of 0.45

OFE09-Natural Ventilation with Operable Windows and No A/C

OFE12-Air Conditioning with Air cooled Screw chiller

OFE24-Energy-Saving Light Bulbs - Internal Spaces

OFE25-Energy-Saving Light Bulbs - External Spaces

OFE26-Lighting Controls for Corridors and Staircases

WATER

OFW01-Low-Flow Faucets in All Bathrooms - 2 L/min

OFW02-Dual Flush for Water Closets in All Bathrooms - 4 L/first flush and 3 L/second flush

OFW03-Water-Efficient Urinals in All Other Bathrooms - 2 L/flush

OFW08-Black Water Treatment and Recycling System

MATERIAL

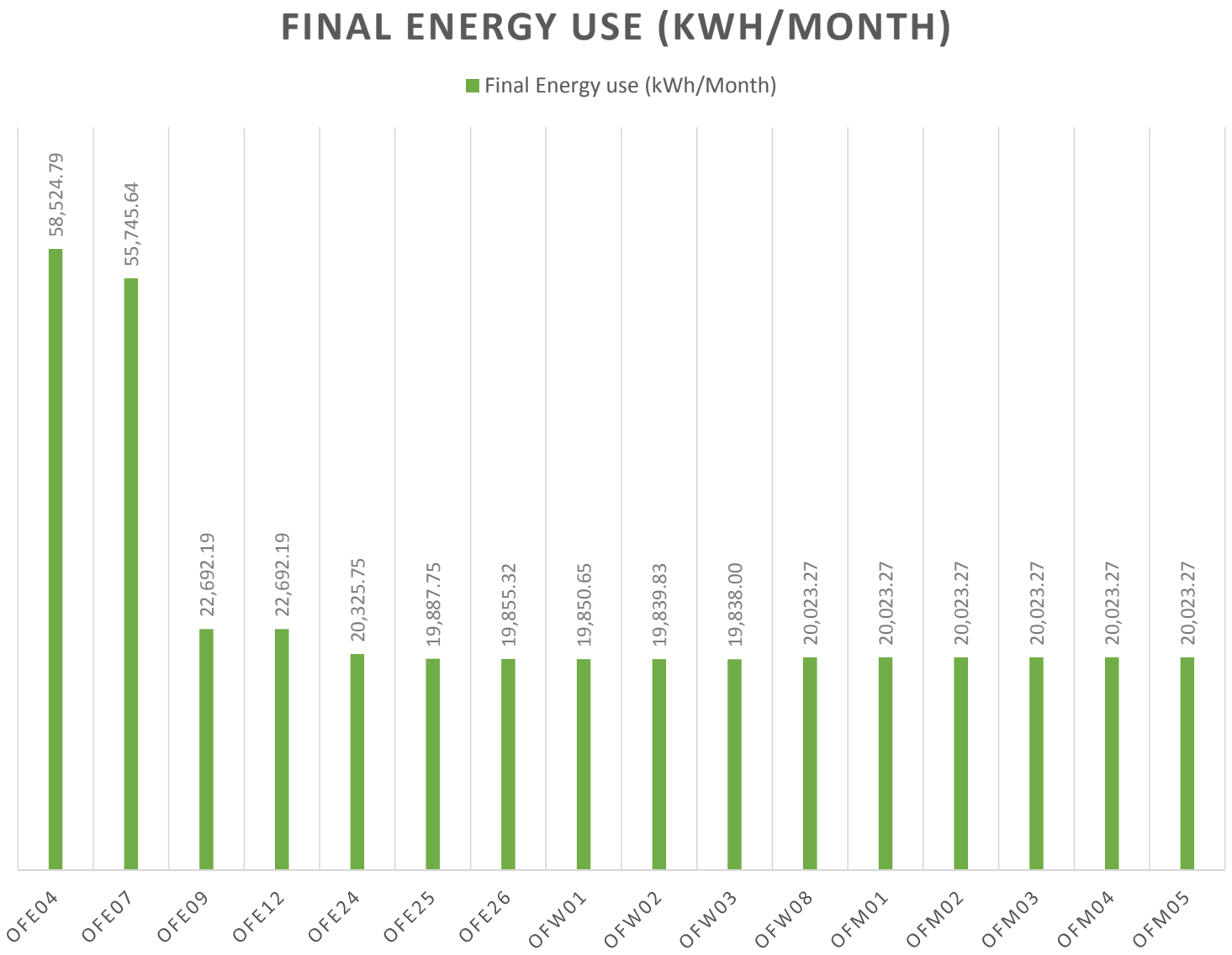
OFM01-in situ reinforce

OFM02-in situ reinforce

OFM03-external wall medium weight hollow concrete blocks

OFM04-internal walls medium weight hollow concrete blocks

OFM05-flooring finished concrete



ENERGY

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OFE09-Natural Ventilation with Operable Windows and No A/C

OFE12-Air Conditioning with Air cooled Screw chiller

OFE24-Energy-Saving Light Bulbs - Internal Spaces

OFE25-Energy-Saving Light Bulbs - External Spaces

OFE26-Lighting Controls for Corridors and Staircases

WATER

OFW01-Low-Flow Faucets in All Bathrooms - 2 L/min

OFW02-Dual Flush for Water Closets in All Bathrooms - 4 L/first flush and 3 L/second flush

OFW03-Water-Efficient Urinals in All Other Bathrooms - 2 L/flush

OFW08-Black Water Treatment and Recycling System

MATERIAL

OFM01-in situ reinforce

OFM02-in situ reinforce

OFM03-external wall medium weight hollow concrete blocks

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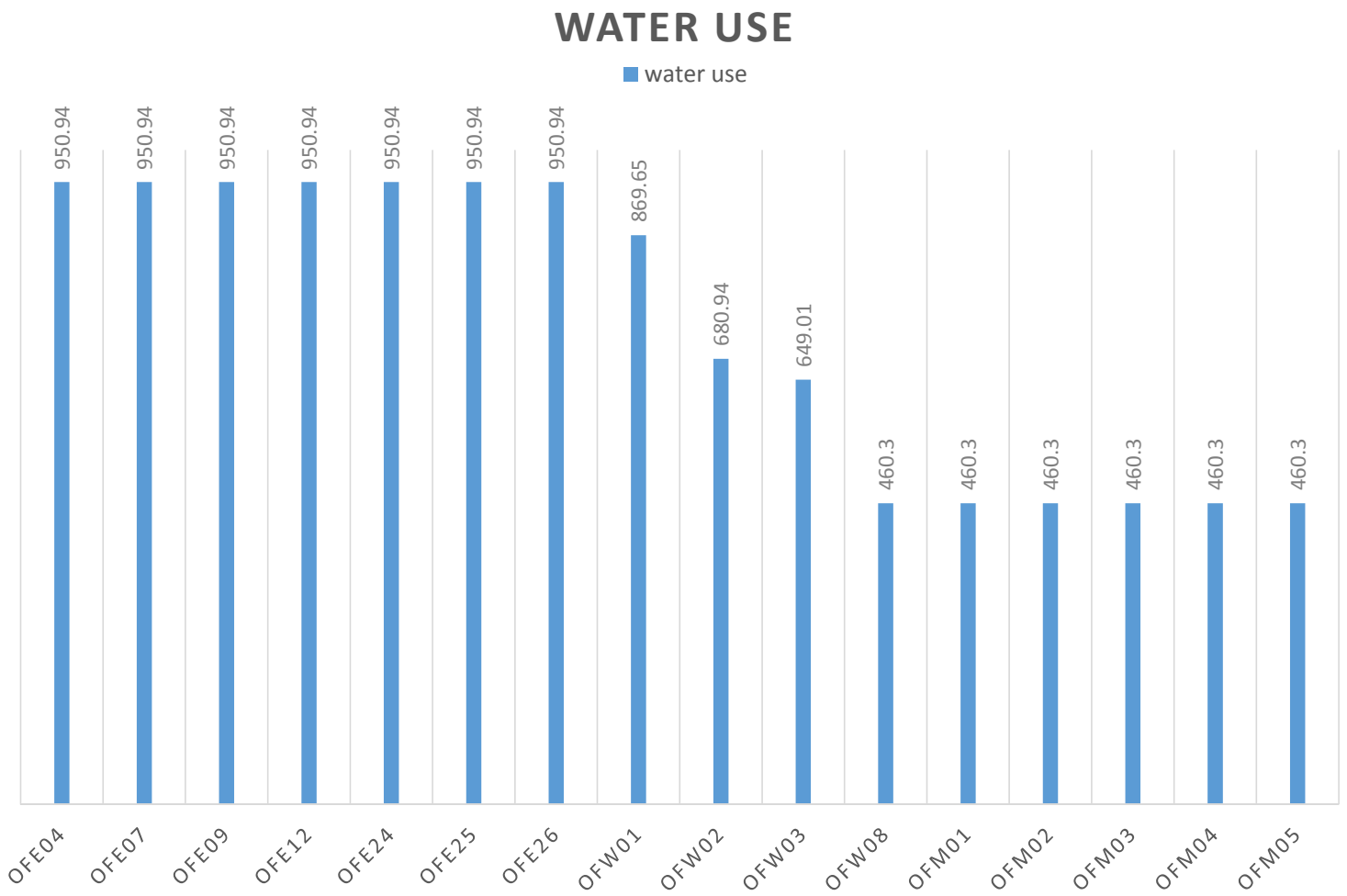
OFM05-flooring finished concrete



ENERGY

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OFE24-Energy-Saving Light Bulbs - Internal Spaces

OFE25-Energy-Saving Light Bulbs - External Spaces

OFE26-Lighting Controls for Corridors and Staircases

WATER

OFW01-Low-Flow Faucets in All Bathrooms - 2 L/min

OFW02-Dual Flush for Water Closets in All Bathrooms - 4 L/first flush and 3 L/second flush

OFW03-Water-Efficient Urinals in All Other Bathrooms - 2 L/flush

OFW08-Black Water Treatment and Recycling System

MATERIAL

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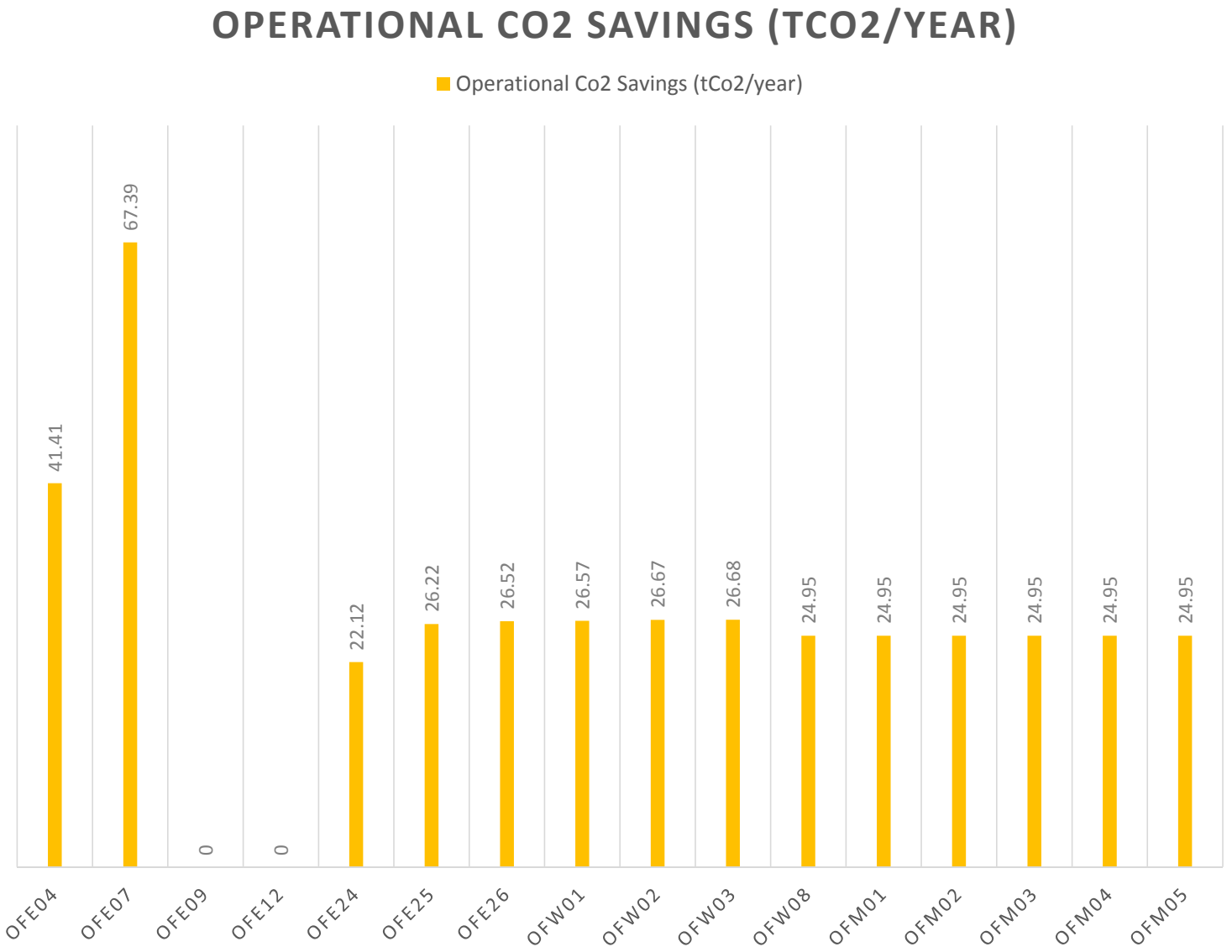

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OFE24-Energy-Saving Light Bulbs - Internal Spaces

OFE25-Energy-Saving Light Bulbs - External Spaces

OFE26-Lighting Controls for Corridors and Staircases

WATER

OFW01-Low-Flow Faucets in All Bathrooms - 2 L/min

OFW02-Dual Flush for Water Closets in All Bathrooms - 4 L/first flush and 3 L/second flush

OFW03-Water-Efficient Urinals in All Other Bathrooms - 2 L/flush

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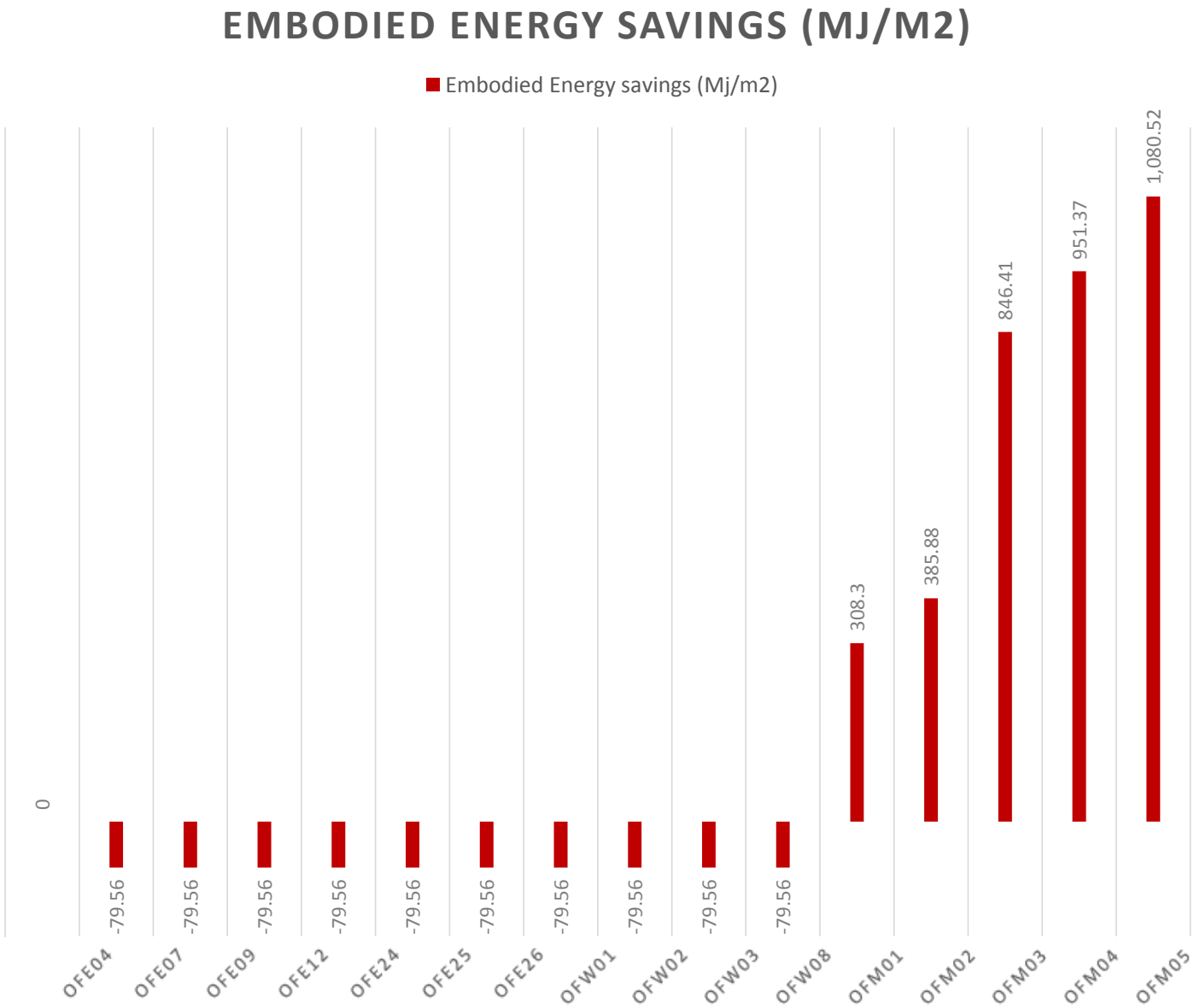

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OFE26-Lighting Controls for Corridors and Staircases

WATER

OFW01-Low-Flow Faucets in All Bathrooms - 2 L/min

OFW02-Dual Flush for Water Closets in All Bathrooms - 4 L/first flush and 3 L/second flush

OFW03-Water-Efficient Urinals in All Other Bathrooms - 2 L/flush

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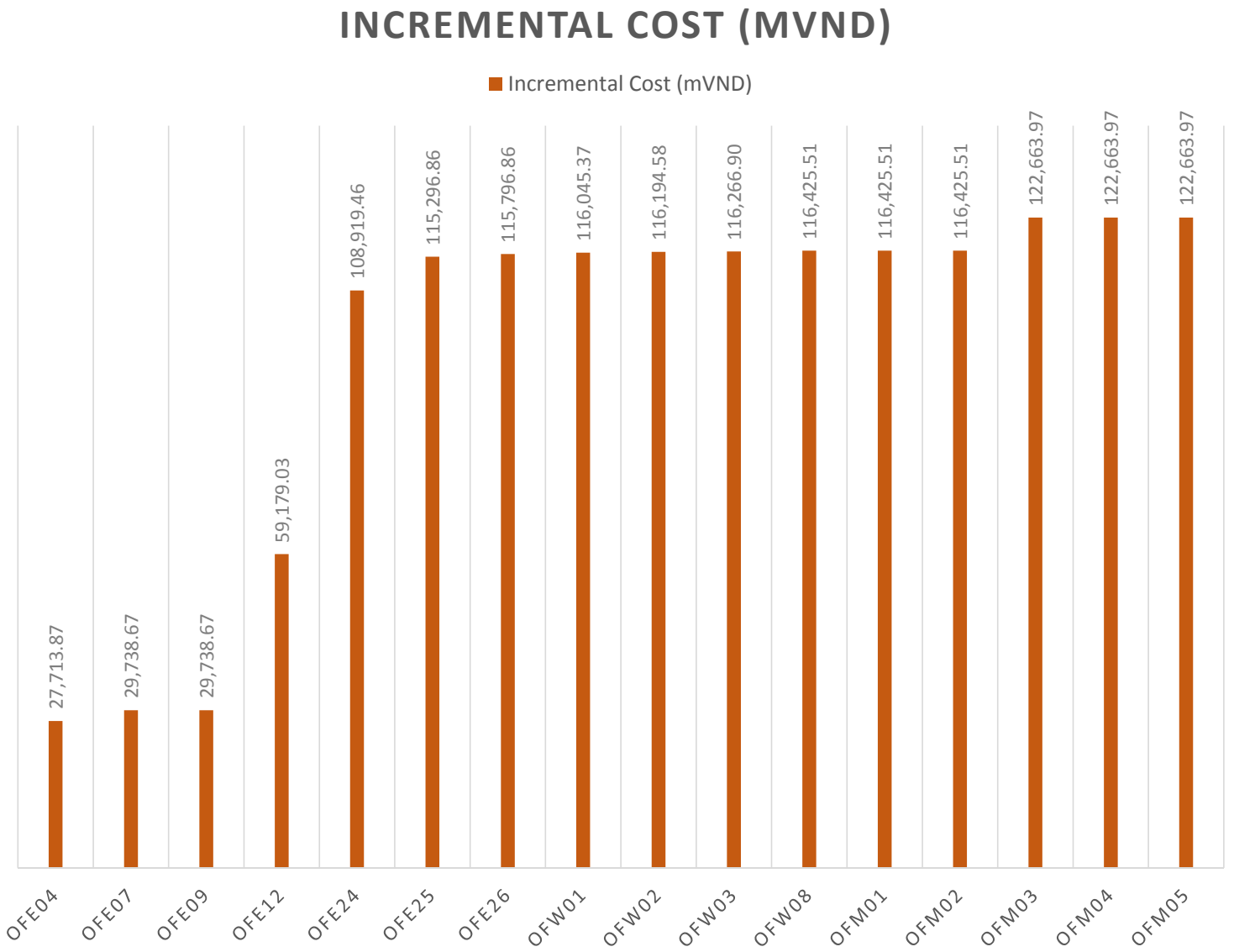

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WATER

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OFW02-Dual Flush for Water Closets in All Bathrooms - 4 L/first flush and 3 L/second flush

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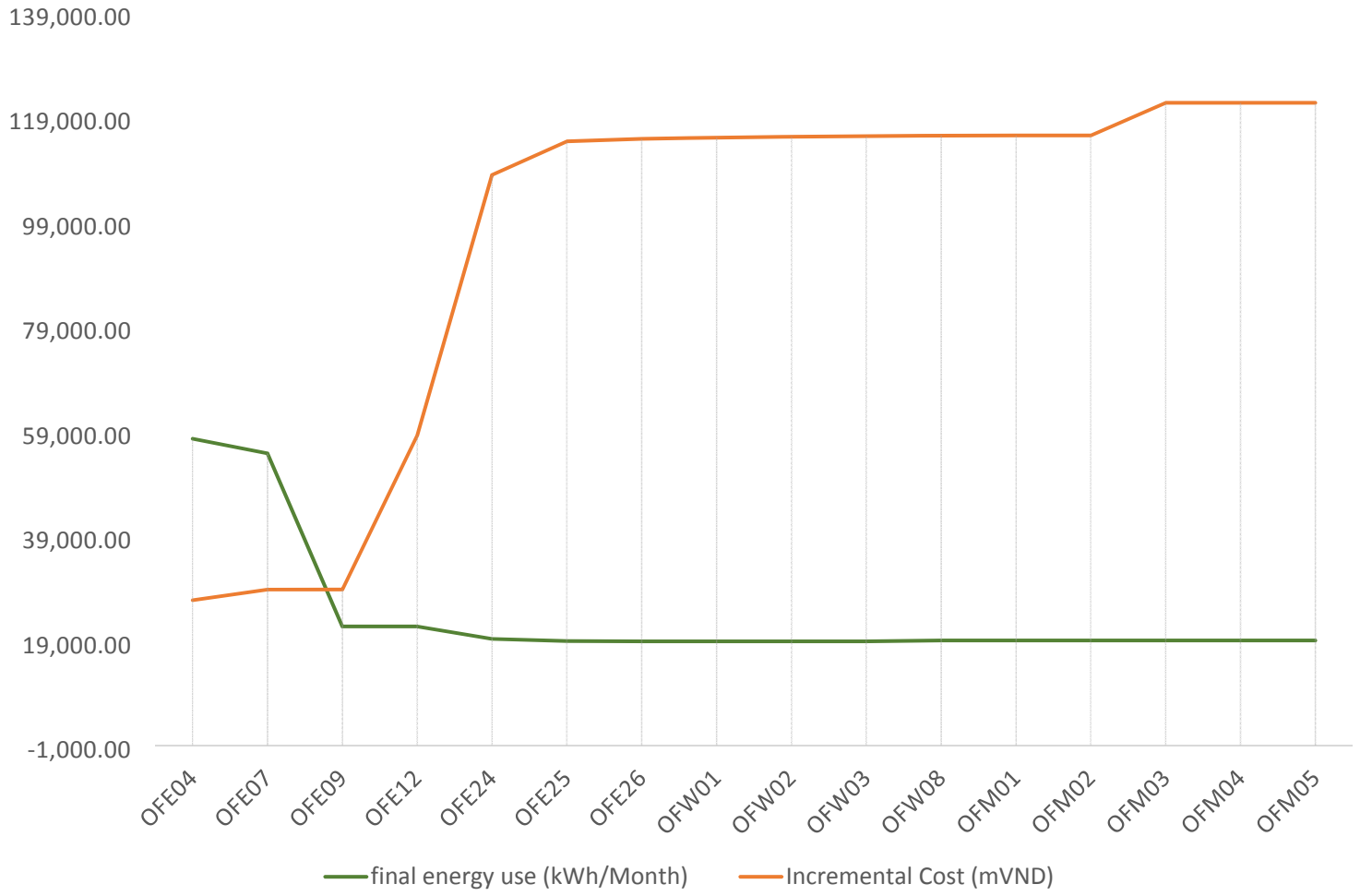

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OFW02-Dual Flush for Water Closets in All Bathrooms - 4 L/first flush and 3 L/second flush

OFW03-Water-Efficient Urinals in All Other Bathrooms - 2 L/flush

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